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Original Communications.

A CASE OF MEMBRANOUS DISEASE OF THE THROAT AND AIR-PASSAGES;

Conjoined with, or immediately succeeding a Sloughing Ulcer of a Tonsil; Rapid formation of Membrane, and ejection of unusual quantities; Death from Exhaustion.—With a Case of Inflammation of the same parts without Membrane; Recovery; Cases compared; Remarks.

Reported (and specimen shown) to the Boston Society for Medical Improvement, Aug. 10th and Sept. 14th, 1868, by B. E. CORTIS, M.D., of Roxbury, Associate Member.

Mrs. A., widow, aged 37, mother of several children, apparently in firmest health, tall and stout, but not gross, weighing about two hundred pounds; after exposure, in early morning, to chilling air and damp ground in her garden, became ill in the afternoon of Thursday, July 30th; felt chilly in the evening, and retired without supper. In the night, suffered much from a soreness of throat, which increasing rapidly and painfully into following day, she asked for medical advice.

Friday, P.M., July 31st.—Left tonsil swollen externally to the size of half a large hen's egg, divided longitudinally. Inside, on middle of tonsil, a rough, ragged, sloughing ulcer, three quarters to an inch in diameter, surrounded with intense inflammation, mahogany red, extending in all directions, even to the other tonsil, and into nares and pharynx, as far as could be seen. Pain and burning intense and "intolerable." Restlessness great, with frequent calls of "what is it? what is it?" No new constitutional disturbance. Skin and pulse normal, or very slightly disturbed. (Day very hot and oppressive.) Had taken solution of chlorate of potassa, which aggravated the soreness and intensified the distress.

On Saturday and Sunday, the ulcerative process continued, and small quantities of bloody, sloughy masses were thrown off. The throat on left side hung with shreddy

pendants, of a foul, dirty appearance and offensive odor. Swallowing almost impossible.

Monday, Aug. 3d.—Nearly all the shreds, &c., gone from the throat. No odor. Swallowing comparatively easy. Milk taken by the goblet without difficulty; other things not so easily. A feeling of soreness in throat, but oppression under upper portion of sternum most complained of. Appearance of membrane in throat, and on arch of palate. Tonsil reduced in size, and swelling of neck subsided.

When requested, she could inflate the lungs fully; but generally the breathing was short and unsatisfactory, and attended with great and anxious effort, and frequent attempts to clear the passages. No sleep since Thursday night, the night of the attack. Voice, generally in whisper, by effort raised to nearly natural force and tone.

The weather up to this time was very hot and sultry. This added to the suffering, and increased the perspiration, which covered all upper part of body. She would get up and walk about the room, or sit at an open window, in spite of all remonstrances.

Tuesday, Aug. 4th (stormy, wind north, and cold).—All symptoms aggravated; labor in breathing excessive. No continuous sleep. Swallows readily; takes milk in quantity—a quart during the day time. Oppression and pain in upper part of chest increased. Less restless, or rather is able to keep one position longer than when the weather was so hot. Skin of extremities cool. Pulse 100. Tongue dry and stiff; coat hardened by the necessity of constantly keeping the mouth open.

Wednesday, Aug. 5th.—In A.M. coughed up two ribbons of membrane, with some relief to respiration, but with increase of soreness in upper part of chest. Night much as before. Exhaustion now quite marked. Pulse 120, feeble. Extremities cold. Mind clear. The question, "Where will it end?" repeated frequently, in whisper.

P.M.—Seen with Dr. E. Palmer, of Boston. Asphyxia apparently imminent, but on ef-

[WHOLE No. 2118.]

fort fills the chest. No obstruction sufficient to indicate tracheotomy for a moment. Semi-recumbent, supported by pillows, but sits up when requested, and takes position required for examination of throat, &c. When told that she must take some brandy in her milk, said it would burn her, but that she would try it. Sat up of own accord, took the goblet, and made the trial. The fluid being regurgitated through the nostrils, she compressed the nose with her hand and compelled the liquid to pass down her throat, in this way swallowing half an ounce perhaps. Pulse 130, feeble and irregular.

At about 5, P.M., ejected, with almost superhuman effort, disengaging it with her fingers from the throat where it stuck for a time, a tubular membrane, which had lined the trachea, branches, and even the smaller ramifications; a mass which seemed impossible to have existed there with so much space for inspiration of air; or, existing, to have been, by any possibility, cast off whole.

After this she fell asleep, and slept about half an hour. Felt relieved, but suffered greatly from burning soreness over upper part of chest. Being told that her safety depended somewhat on her own exertions, she applied herself diligently to the remedies and nutritious mixtures.

At a little before midnight she gently reposed further assistance; saying that "it is of no use," and, laying down her head, without tremor or movement, ceased to breathe—so quietly that the attendant could hardly believe it. Those then immediately summoned to her bedside noticed that the heart continued to beat for some moments after respiration had entirely ceased.

During the sickness there was no "fever heat" noticed by the attendants, except a little at the onset of ulceration of the tonsil. Perspiration, great during hot days, was not very remarkable and only on upper portion of chest, neck, and head, on the subsequent cold days. Pulse from 80 (first day, Friday) rose gradually and feebly to 100 on Tuesday, and to 120, 130 or more, on Wednesday, the last day.

Respiration, though very laborious, was so from the increased mechanical effort necessary to move the chest—arising not from obstruction in the larynx (as any one could be convinced of by a little attention), but from the air inspired not "satisfying," as she said.

The chest was at all times resonant on percussion. The vesicular murmur, heard for the first two or three days, gradually

diminished in force, and at last became inaudible; restlessness of the patient, however, rendered auscultation somewhat unsatisfactory. Cough, or an apparently voluntary effort to clear the throat, was constant from the beginning, accompanied with the frequent exclamation "so tired." Position was changed almost every moment, without rest in any. Soreness particularly, and pain often, in the parts affected, was continually complained of.

Nearly six days and five nights were passed without sleep, except an occasional momentary nod, as both patient and attendants averred. She slept for half an hour, however, a few hours before death, when her revived appearance, and repeated expression of "such a rest," gave attendants a transient hope that permanent relief was at hand.

Death took place without any perceptible change in her appearance—from her declared and seeming inability to make any longer the exertion necessary to respiration.

The disease appeared in this instance to have no more connection with the ulceration of the tonsil, than in other cases it has with measles or scarlet fever, which it sometimes fearfully complicates. As is well known, it often occurs without inflammation of the tonsil or of the throat; while inflammations and ulcerations of the throat and adjacent parts are very frequent without formation of membrane. Like other diseases, it "has as much depended upon one particular poison as the human race has depended upon the transference of one particular germ."*

Treatment.—Chlorate of potassa, taken before medical advice, aggravated the distress, and was soon abandoned. Anodynes, never to somnolence, were apparently serviceable, given in varied, thin, mucilaginous solutions. Morphine proved most acceptable to the patient, and most effective. Carbonate of ammonia and brandy were administered when strength began to give way.

Cotton batting was kept, with acceptance, constantly to the neck and upper part of chest. A small sinapism was applied for a few moments, by a friend, on the fifth day, but caused distress, and was soon cast off by the patient.

Vapor of hot water on anodinous plants

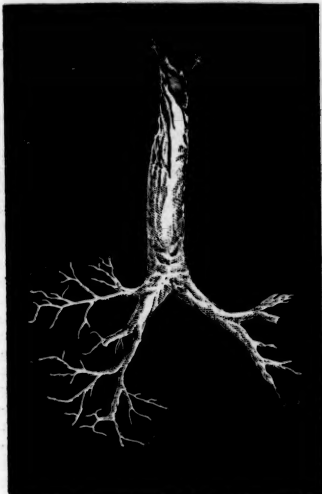
"*The Poisons of Spreading Diseases*," by B. W. Richardson, London, 1867, p. 8.

A son, a delicate youth, subjected to the same exposure as the mother, did not then, like her, receive the "poison," or morbid element, nor subsequently from her while sick, although he was afflicted with a chronic bronchial affection. This shows that personal susceptibility is also requisite.

was administered constantly, by inhalation, with greatest satisfaction to the patient, and gave the most apparent relief.

Diet.—Milk, as much as could be got down; and, in last portion of time, milk and brandy. She tried other liquids—beef-tea, gruel, &c.—but they were uniformly distasteful, and caused discomfort.

The accompanying wood-cut, taken from



a photograph, will give a very good idea of the membrane as ejected. It must be borne in mind, however, that the specimen was somewhat shrivelled and corrugated, especially in the smaller branches, by the alcoholic solution in which it was preserved. It was tubular throughout. The tracheal part measured four and a half inches to the bifurcation, and averaged about five eighths of an inch in diameter. The representation is about two fifths of natural size. The membrane was quite thick and firm, except at the upper part, and in the smaller subdivisions, a number of which, especially of the twigs of the left bronchus, were detached, though handled with all possible care.

CASE II.—Mrs. B., widow, aged 83, a thin, spare person; for many years a martyr to dyspepsia, and latterly living on minute fragments of beef and bread; mostly confined to the house, and made ill by any exposure to the open air. Weight from ninety to ninety-five pounds.

Tuesday, Aug. 18th, reported unusually cheerful and active during the day. In the evening, complained of a sore throat, and passed a rather uncomfortable night.

Wednesday, Aug. 19th.—Saw her for the first time in afternoon. In paroxysm of fever. Skin hot. Pulse 100. Throat (pharynx) inflamed, having a deep-red and angry look; swallowing very difficult. Voice slightly roughened. Respiration not as comfortable as usual, but to appearance not much disturbed. Occasional cough or hack. Had a dejection previous day; objects to opiates. Directed syrup of wild cherry in aqua acaciæ *ad libitum*; cotton to throat and neck; vapor of hot water.

Thursday, Aug. 20th, A.M.—Pulse 100. Breathes with effort. Voice and cough husky and stifled. Swallowing painful. Distress in stomach (her old symptom). Beef-tea adds to the distress. Takes a very little brandy and water. Vapor tried, disagreed, and was abandoned. Fomentation of hops to throat and top of chest (she added onions with satisfaction, but declined a second application of them). Was willing to have laudanum externally. Throat less angry-red.

In afternoon, symptoms became aggravated. Great distress at top of chest. Some coarse râles heard there; resonant on percussion. Some little mucus expectorated, with great effort, tinged with one or two slight stains of blood. Complains that she is breathing over a very sore surface. Larynx and trachea quite tender on pressure. Chest fully inflated by special trial, but imperfectly in ordinary respirations. Expression anxious. Is concerned about the result. Feverish. Pulse 110, feeble. Restlessness and jactitation as night approached.

In night, frequently waking "in spasms" from short dozing. Consciousness sluggish. Her appearance very alarming to attendants, who several times thought her dying. Seemed pulseless at times when apparently asleep. Food, drink and medicines for a while abandoned, through difficulty in making the effort to swallow. Extremities cold, but readily warmed up.

Friday morning, Aug. 21st.—Lies only on back, head slightly raised; uneasy, but cannot take either side. Does not appear so distressed; groans but little. Respiration irregular, with occasional interruption, and some wheezing—twenty-four per minute. Chest resonant in front. Cannot speak loud. Cough feeble and hoarse; some mucus raised with difficulty and annoyance. Pulse 120, feeble. Tongue dry. Throat not easily seen. Can swallow more easily; but

brandy, though largely diluted, "burns like fire." Can take nothing but a little thin syrup of poppies, with a mere particle of carbonate of ammonia.

In forenoon, slept some, and was more quiet than before. Was able to take a little milk, with a few drops of brandy in it, not more than four teaspoonfuls in all of the mixture. At noon, with effort, spoke aloud in cracked tones. Took three spoonfuls of the milk and brandy, and nibbled a bit of cracker. No change in afternoon.

Towards night, respiration more labored than in morning, wheezy, irregular; twenty-four per minute. Tongue moist. Throat not very red. Both swallowing and respiration less painful than hitherto. Pulse 116. In night, variable; generally more quiet, and able to take much more drink. Slept frequently; short naps. Occasionally appeared to be sinking, especially so near day-break. Asked for camphor, and inhaled vapor of it with relief.

Saturday, Aug. 22d, forenoon.—"Comfortable." Comparatively quite free from distress in throat and chest. Respiration easier, twenty-two per minute; still with some effort, to overcome apparent slight obstruction in trachea. Pulse 120. Body hot. Extremities cold. Beef-tea enema directed. During day complained of increased weakness. Respiration twenty per minute, with occasional whistle. Chest resonant. Cough decreased, and in evening voice became nearly natural. Exhaustion appeared less. Now and then a very slight wandering of mind.

Sunday, Aug. 23d.—In morning, pulse 110. Respiration better and easier. Cough, from lower parts of chest; some râles. Mucus expectorated. Skin natural. Mind clear. Took injection, which worried much without effect. Took a teaspoonful of sol. morph. offic.

At night, pulse 100. Respiration good, twenty-four per minute. Bright, talkative. Cough abated. Expectoration very slight. In night, slept pretty well for her. Perspired some.

Monday, Aug. 24th.—Doing well, and improving in all respects, in the forenoon. Slept much. Was not so well in night following. Sleepless; hot; pulse "rapid." Cough again troublesome, but no expectoration.

Tuesday, Aug. 25th.—Easy. Respiration good. Pulse 100. Complains of discomfort in stomach and bowels. No satisfactory dejection. Took rhei pulv., cal. magnes., aa 3ss., which, in afternoon, by aid of injection, produced a tolerable de-

jection, with relief. At bedtime, took a teaspoonful of sol. morph. offic.

Wednesday, Aug. 26th.—Had a fair night. Pulse 96. Respiration good. Cheerful; free from pain and distress. Cough only occasional and slight. No heat or discomfort in bowels. Takes but little nourishment, but enough compared with usual habit before this attack. Completely convalescent from the disease of throat, trachea, &c.

It may be observed that in this case the same parts were involved as in the previous one. Great distress and difficulty in swallowing, speaking, and breathing, followed each other in rapid succession in both cases. In both, relief in these particulars, so far as obtained, followed in the same order. In both, the constantly recurring and extraordinary efforts the patients were forced to make in breathing caused their greatest distress. In both, there was the same imploring for "rest," and the same exhausting restlessness. In the second case, however, the burning soreness of the parts was more marked; and the danger of speedy extinction of life appeared to attendants more frequently imminent than in the first. In many other particulars the two diseases run parallel courses. Yet these two diseases are evidently essentially different. One is characterized by the formation of a membrane—its *sine qua non*; the other, equally a specific disease, manifests itself in an inflammation purely, with no tendency in itself to membranous or other complications; and though liable to be (to use the words of a late eminent practitioner*) "so suddenly destructive of life, is among the most simple in its nature," resembling in its earlier stages "the common affection which we all know as a sore throat arising from a cold."

LACERATION OF THE SPLEEN IN PREGNANCY.

By J. O. WHITNEY, M.D., Pawtucket, R. I.

The subject of this notice was a Mrs. S., 34 years of age, eight months advanced in her ninth pregnancy, and a patient of Dr. T. Phelps, of North Attleboro', Mass., by whose request I report the case. She had uniformly enjoyed good health, and nothing whatever occurred to indicate the approach of the fatal event, unless a numbness of one of the upper extremities, and a

* Dr. James Jackson. Laryngitis. Lib. Pract. Med., vol. xxiv., p. 165-6.

puffiness or bloat of the face which had, a week prior, showed danger *somewhere*. For this plethoric state of the vascular system, she mentioned being bled, but medical advice was not taken.

December 28th, 1867, she ate a hearty supper, retiring as usual, but at 11 o'clock, P.M., was taken with the most violent pain in the region of the stomach. Two hours later she was seen by her physician, who gave anodynes, with much relief. Two convulsions took place, resembling puerperal fits; and she had remarked, "I am a going to be sick the same as I was before," referring to a premature labor, attended with three convulsions, for which she had been bled with prompt relief. These two fits were in all respects like the three she had had in the former illness, only less severe. This is the belief of her husband, who is an observant man, and the suggestion that they were fainting fits, caused by loss of blood, he would not entertain, and he feels certain that the pulse, prior to the first one, was full and strong, though it soon became small and rapid. The first convulsion lasted about thirty minutes, consciousness not fully returning, though she swallowed some medicine, when she went into another, which lasted an hour and a half. Consciousness then returned; she talked, sat up in bed with aid, and got up and passed urine. On being persuaded by her husband, she again lay down, and expired in about an hour, and five hours from the attack. Dr. Phelps considered the convulsions puerperal, the small and rapid pulse deterring him from the use of the lancet, as urged by the family. Inspection of the uterus showed that labor had not begun. The autopsy, made eight hours after death, revealed a lacerated spleen, from which had escaped four or five pints of dark and still fluid blood. The organ was only a little if any enlarged, the torn part of the color and consistence of black currant jelly.

Sir J. Y. Simpson suggests that enlargement and softening of the spleen are quite common in pregnancy; he had seen a case occurring in a series of pregnancies, the organ in the intervals returning to its normal state.

At a meeting of the Obstetrical Society of Edinburgh, in June, 1866, six cases of rupture of the spleen were reported, some taking place prior, some during, and some subsequent to labor—all fatal, of course. From the fact that one patient invariably recovered from this state of "physiological" enlargement of the spleen, we may infer that it is not in a state of disorganiza-

tion, but only in a condition predisposing to the accident of laceration, and when combined with a plethoric vascular system rupture is quite probable.

As to treatment, we are quite in the dark, for in this particular case nothing pointed to the spleen as being endangered. Even the renowned Edinburgh Professor could not have detected the slight enlargement that existed, I will venture to say. No local uneasiness was experienced, and nothing save the numbness and bloat of the face before mentioned suggested the necessity of medication. These two things, together with her robust health, would have indicated to practitioners of the olden times depletion. Prof. Simpson does not allude to treatment; and he speaks of the enlargement and softening being always connected with an increase of the white corpuscles of the blood. The enlargement was far greater in the cases he recites than in the one now noticed. In the absence of microscopic examination of the organ, and, in fact, in the absence of a more full and complete account of the condition of the system generally, the treatment in a case fairly made out must be upon general principles. Enlargement of the spleen is common in typhoid fever (laceration sometimes happening); this state of the organ is probably not the disease itself, but only a part of some general condition or derangement of the entire digestive system.

BONY DEPOSIT IN THE SPLEEN.

MR. EDITOR,—While pursuing some investigations as to enlarged spleen at a hospital in Baton Rouge, during the spring of 1863, I made a large number of *post-mortem* examinations.

In the case of a man who died of acute diarrhoea, and who had had remittent and intermittent fever previously, I found, on making a section of the spleen, the knife resisted by some hard substance; and, on further examination, discovered, resting within and near the base of the spleen, with its horns pointing upward, a crescent-shaped osseous deposit two inches in length. The greatest diameter of the bone was about equal to that of an ordinary lead pencil, and its surface was rough and uneven. Though stained by the fluids of the spleen when first removed, upon being washed and bleached it was found to possess the characteristics of bone. The spleen was somewhat larger and softer than usual, and it was observed that its substance was in no

wise adherent to the bone contained within it. The deceased (H. V.) was a soldier, apparently about thirty years of age, and, so far as I know, had never complained of uneasiness in the left hypochondriac region.

I kept this specimen of bone, with others which I had collected, intending to send them to the Army Medical Museum at Washington; but being ordered away suddenly for a campaign in Florida and Alabama, I was obliged to deposit, with other articles, my specimens in a quartermaster's warehouse at New Orleans. On my return I learned that the property, belonging to several regiments, which had been deposited in the above mentioned warehouse, had been removed to other buildings, and that my specimens had been lost.

Bony deposit in the spleen is of rare occurrence, I believe, and so I have thought this instance of sufficient interest to pathologists to be recorded.

J. T. PAYNE, M.D.,
Late Surgeon Volunteers.

New Orleans, La., July 18th, 1868.

UNSUCCESSFUL ATTEMPT TO CLOSE A FÆCAL FISTULA.

MR. EDITOR,—F. B. was stabbed in his left side with a two-edged dirk, an inch above the ilium, penetrating the descending colon just beneath the external wound. Fæcal matter issued through the external wound ever afterwards. Nine months after the accident, this wound having partially closed, fæcal matter burrowed in the cellular tissue, and ulcerated out at two points, half way between the spine and the opening made by the dirk. Up to this time he hoped to recover, but now he felt that without some surgical operation he must be worn out with the discharge and die.

At the urgent solicitation of himself and friends, and after some delay and much hesitation, I consented to operate on him, and give him what slight chance there was for life. He was much emaciated from a whole year of confinement.

Dec. 17th, 1867, a year from the time of the stab, I operated on him by opening the abdomen, finding the hole in the intestine, and sewing it up. The perforation in the intestine was more than an inch in length. I took eight interrupted silk sutures, and cut the ends off close to the knots. He bore the operation well, and was more comfortable the forty-eight hours that he lived afterwards than he had been for a long time. He died from exhaustion.

A post-mortem examination showed no traces of inflammation, or attempt at repairation.

N. L. FOLSOM, M.D.
Portsmouth, N. H., July, 1868.

Bibliographical Notices.

Microscopic Examinations of Blood; and Vegetations found in Variola, Vaccina and Typhoid Fever. By J. H. SALISBURY, M.D. New York: Moorhead, Bond & Co., Printers. 1868. 8vo. Pp. 65.

This is a remarkable book, as those familiar with the previous writings of the author will be prepared to believe. It contains accounts of discoveries startling alike to the pathologist, chemist, and physiologist. They are announced, too, in a manner quite as novel as their character is surprising. It has been the custom of students of natural science to substantiate each step claimed in advance of previous knowledge by carefully recorded observations, and to offer in support of new theories at least some data which can be generally accepted. This custom the author has largely ignored, so that in reading his book one is obliged to take his statements on faith, or else refuse to accept views so strange until they are corroborated by the observations of others. Unfortunately, Dr. Salisbury advances so rapidly from one discovery to another that it must be a long time before we shall obtain from observers capable of expressing an expert opinion confirmation of their claims, unless it be that some of them are so utterly at variance with firmly established doctrines that they will remain unnoticed by men of science.

It may be already forgotten to what an extent Dr. Salisbury has been a discoverer. It was only in 1862 that he announced that camp measles, then so prevalent in our armies, was caused by the presence of a straw fungus. The fallacy of this theory has been repeatedly shown by army surgeons who have had the largest experience with this disease, among the latest of whom is Dr. Bartholow, in Dr. Flint's recent volume on army diseases.

In 1866 he announced the discovery of the cause of intermittent and remittent fevers. The enthusiasm with which this was received is well remembered, as well as the claims to priority of discovery which were started in various parts of the world; of a discovery which rested on investigations unsatisfactory at the time, and which so far

as we know have never since been pushed to a conclusive termination either by Dr. S. or any other observer. Without discussing this question at length, it may be stated that it has not yet been demonstrated that the vegetable organisms to which the origin of the disease is attributed are not found in localities where intermittent fever does not exist; or that they ever produce the disease when transported to regions where this affection does not prevail. Such a theory in no way furnishes a satisfactory explanation of the long periods of incubation so characteristic of intermittent; of its return after prolonged intervals and removal to non-malarial districts; and of its non-contagiousness under all circumstances, notwithstanding the great production within and constant excretion from patients of the very germs which are claimed to be the origin of the disease. Furthermore, persons suffering with this affection here do not appear to excrete any such organisms as Dr. Salisbury has described. The whole theory seems to rest at present upon evidence quite as unsatisfactory as that with regard to measles which preceded it.

In 1866 he also published an article on the functions of the spleen and some remarkable peculiarities in some of the elements of the blood, which will again be referred to below.

In 1867 he published an account of three new chemical varieties of rheumatism caused by the presence in the blood of crystals of oxalate of lime, cystin, and phosphates, which can be noticed only in the briefest manner. Oxalic acid, as is well known, stands in intimate relationship to uric acid, and it needs but a slight jostling of the equilibrium which exists between the successive processes by which the metamorphosis of our tissues is effected, such as disturbances of respiration or digestion, to convert effete materials into the former in place of the latter. So readily is this substitution effected, that it can scarcely be looked upon as abnormal, at least not as a serious deviation from the law. Whenever oxalic acid is formed in our economy, there it must necessarily be converted into oxalate of lime, which in the blood is held in solution by other salts there present. No observer has ever seen it in the blood in its crystalline state in all the innumerable examinations of this fluid hitherto made. Dr. S., however, says the blood is full of such crystals in one variety of rheumatism, and that its presence there is the specific cause of the disease, the incubative stage of which, according to him, may last "from

a few months to many years." Oxalate of lime, he states, is "formed by the diseased parent blood gland cells, and being insoluble in the fluids of the body accumulates in the blood." With this sentence is set aside the accumulated observation of the most renowned physiologists and chemists of modern times in relation to the formation of this substance. When opinions clash in this irreconcilable manner, we must fall back upon the character and reputation of the observers in determining which we are to accept.

The same may be said with regard to his cystinic rheumatism. Cystin, according to the most recent investigations of Gorup-Besanez, Kühne, Robin and others, is known only as an extremely rare ingredient of urinary calculi and sediments. It has also been extracted from the kidney and liver in one or two instances and in very small quantity. As to its physiological relations we are in almost complete ignorance. It has never been observed in the blood or perspiration by any reliable observer. It has a distinct crystalline form and well-marked chemical reaction. Now Dr. S. would have us believe that this very rare substance occurs in the blood "often in great abundance," where it produces puerperal mania in pregnant women, and is a frequent cause of insanity in young ladies. It produces also the enlarged joints of chronic articular rheumatism. These views seem to be based upon the discovery in the blood and excretions of certain granular or semi-crystalline bodies which he calls cystin. He does not say that he has analyzed them, but they certainly in no way resemble the crystalline forms of cystin known to all the rest of the medical world, and without the stamp of the chemist cannot pass as such. It is upon such evidence that his new varieties of rheumatism rest.

In January, 1868, an article from his pen appeared in the *American Journal of the Medical Sciences*, entitled "Description of two new Alloid Vegetations, one of which appears to be the specific cause of Syphilis, and the other of Gonorrhœa." One of these plants, called *crypta syphilitica*, although of the very lowest order of vegetation, is possessed of wonderful faculties, as will be seen, if we believe with the author that while being the cause of the primary sore, as well as of the succeeding constitutional symptoms, it may yet remain in the system for years or a lifetime without producing serious trouble, or may be transmitted by a father, once syphilitic, to and

be formed in the blood of the wife and children many years afterwards without producing upon them any visible impression. It seems to us that this subject scarcely deserves the serious attention of the reader or reviewer as thus presented to them, for not a shadow of evidence is offered that the forms seen and figured by Dr. S. have anything to do with the cause of syphilis or gonorrhœa.

In the next number of the same Journal there is another article on the parasitic growths connected with the urine, in which a dozen or more of new cryptogamic plants are described, all of which are supposed to be more or less productive of disorders of the urinary and genital organs. Dr. Salisbury is certainly fortunate as a discoverer. An extensive acquaintance with the microscopic appearances of urine in health and disease will satisfy any observer of the frequent occurrence of fungoid growths in it in warm weather, and of their multiform appearance, but we doubt if one conversant with the latest phases of cryptogamic botany would think of dividing them up into individual species as Dr. S. has done, or consider it necessary to look elsewhere for their origin than to the spores with which terrestrial space is crowded.

With this passing glance at the announcements of our author during the last two years, which is offered in no way as a thorough criticism of their character, we shall be prepared the better perhaps to understand the nature of the volume before us.

The first chapter treats of the microscopic examination of the blood, and has already appeared in the *New York Journal of Medicine* of the present year. The author begins by stating that he has already made over thirty-five thousand individual examinations, that an hour may frequently be spent with profit in exploring a single drop of blood, and that not one microscope in fifty of those in present use is suited for this kind of study. He then gives a list of "some of the conditions, states, and pathological products to be sought for in blood," which amount to sixty-seven in number, without counting in "many other things to be sought for in pathological blood." To attempt to criticize the details of this list would be to review the whole field of modern physiological and pathological chemistry, so that only the few points which are enlarged upon in subsequent pages can be noticed here.

First, some remarks upon the fibrin in the blood of health and disease claim our attention. They are introduced with the strange

announcement that "there is no possible doubt that the fibrin filaments exist ready formed in the blood stream, and that these filaments are developed from fibrin cells, the nucleus or yolk of the fibrin cell forming the blood disc, while the portion of the cell outside of the nucleus is spun into a fine fibrin thread." Now physiological chemistry teaches us that the substance we are familiar with in blood outside the body as fibrin may be made to assume a filamentous or gelatinous structure while coagulating as we please to change its external surroundings; that we may prevent its formation altogether if we choose; and farther, that in all probability there does not really exist ready formed in the blood any such substance as fibrin, but two albuminoid bodies, called by the latest German observers Paraglobulin and Fibrinogen, by the French collectively Plasmin, which after escape from the vessels by chemical action unite to form for the first time the Fibrin, and which are prevented from such union, or in other words coagulation, within the economy by the vital influence of the walls of the bloodvessels. This is to a certain extent a new doctrine, but one accepted by such men as Virchow, Schmidt, Kühne, Brücke, and by Robin in his recent "*Léçons sur Les Humeurs*." Do we want any higher authority of the present to confirm the opinion always and universally held that blood does not coagulate until it has left the body?

But what are the grounds on which Dr. Salisbury's statements are based? He says "by a little practice, the eye can begin to explore a drop of blood under the microscope, in one second after leaving the bloodvessels. * * * In a few moments will be noticed faintly delineated filaments, crossing and recrossing each other, forming a mesh-work. * * * This net-work of organized fibrin gradually loses the almost perfect transparency it has in the blood stream, and becomes little by little more and more opaque and visible in outline, till in the course of five or ten minutes after it is drawn, the net-work of threads reaches its maximum opacity, the filaments being to the educated eye well defined." Is any comment necessary? Can any one but Dr. S. believe that those filaments existed prior to "the few moments" which elapsed before he saw them? Is not something more than this required to convince us that our physiology is in error on this point? Such being the foundation of his premises, it would be useless to more than mention the pathological deductions he has drawn from

them. Upon the size of the meshes formed by the interlacing of these filaments in the vessels and the consequent free or obstructed passage through them of the morphological elements of the blood, depend in great measure, according to him, such morbid conditions as rheumatism, phthisis, thrombi and emboli, &c.

The second chapter is entitled "the blood disc, a vehicle for transmitting nerve food," and its object appears to be to show that the blood discs carry cholesterin, or nerve fat as he calls it, to the nerve tissue, and that the excess or diminution of this substance in the blood, as shown by microscopic examination, gives rise to some very ill defined symptoms, which he calls cholesteræmia. Cholesterin, so far as we know it, is not really a fat, but plays no doubt an important role in the economy, as it is found in so large proportion in the nerve tissue, and possibly does not exist in the blood at all, although its elements do. Our knowledge of its physiological or pathological relations, very small before, is not enlarged by what is here written.

The remainder of the volume is devoted to the description of cryptogamic vegetations found in both healthy and diseased blood. Two species are represented as always occurring in blood both healthy and diseased, though one of them is stated as difficult of demonstration until the blood has been allowed to stand from one to three days at a temperature of 60° to 70° F. in a bottle, conditions which certainly would not remove the scepticism of one predisposed to deny the existence of such organisms in that fluid. If we accept the statement as a fact, which is in no way improbable, it does show that the blood may contain cryptogamic growths without in any way affecting the health; an important point to be remembered in our study of this subject.

An algoid vegetable, *Crypta carbunculata* (Salisbury), is then described and figured as the cause of carbuncle. The author states that whenever he has found this plant in the blood, the patients have been *more or less* affected with carbuncles, and the carbuncular sloughs have also contained the same kind of filaments.

We now come to the two most important chapters of the book, that is if the opinions therein stated are correct. The first contains the "description of a new vegetation having fungoid and algoid phases of growth found in the blood and eruptions of variola and vaccina, and which appears to be the specific cause of these diseases." This plant Dr. S. describes under the name of

Ios variolosa vacciola, and is represented as possessing two phases of growth, a fungoid, which he calls *I. variolosa*, and an algoid, called *I. vacciola*. Both forms are met with in the eruption and blood of smallpox according to his statement, and if the vegetations of a smallpox pustule be inoculated into a person who has never had variola, the same contagious disease, in a *modified form*, and the same vegetation is produced. If, however, the same be inoculated into a cow, a pustular disease is produced, but the eruption is found to contain only the algoid stage of growth, the *Ios vacciola*. The fungoid phase is not produced in the cow. If now this matter from the pustule of cow-pox is inoculated into the human subject, a pustule like vaccina and variola is produced, but it contains only the algoid stage like the cow-pox sore. The vegetation of the vaccina pustule like that of cow-pox is supposed to have no power of penetrating the epithelial envelope of the body, and is therefore only transmitted by inoculation. The other form, that of smallpox, is supposed to be an active contagion, the spores of which "falling upon epithelial surfaces that have not had the impress of immunity stamped upon them by a previous invasion, penetrate to the deeper tissues, and pervade the entire organism."

This is the theory of Dr. S., stated nearly in his own language, and in his opinion it throws "a flood of light upon some singular features of the disease." Not a single experiment is referred to, nothing is stated as to the number of cases of the disease he has examined, of the number of persons or cows inoculated by him with smallpox, or of the number of cows affected by cow-pox observed to test the truth of his theory, or of the method of conducting his investigations. We are expected to believe without the exercise of our judgment. But if we accept every statement as well established by faultless and repeated experimentation, and admit that one and the same plant is always found in smallpox and its allied affections and under no other circumstances, would this satisfactorily explain all that we know of their manifestations? How, for instance, does it account for that "*modified form*" which Dr. S. says is produced by inoculating the vegetation of a smallpox pustule into a person who has never had variola, when the same vegetation according to him is produced as when the disease is taken by contagion? How can vaccination protect against variola, or in other words, how can the growth in the blood of one

plant at a previous period prevent the growth of the same or of another plant at a remote period in this ever-changing fluid? These are but a few of many questions to which Dr. S. makes no allusion in his book.

But Dr. Salisbury is not the only person who claims to have discovered the cause of smallpox in the presence of vegetable organisms in the system. Prof. Hallier, of Jena, has been working in the same field, and has just published the results of his investigations in a volume of 80 pages, entitled *Parasitologische Untersuchungen bezüglich auf die pflanzlichen Organismen bei Masern, Hungertyphus, Darmtyphus, Blattern, Kuhpocken, Schafpocken, Cholera, &c.* Prof. Hallier seems to possess, in the first place, the requisite intimate knowledge of cryptogamic botany to be able to distinguish the old from the new in these low forms of plant-life, and the plan he has pursued in his studies is in theory the correct one so far as it goes, though in practice open to grave errors. He finds in the fluids and excretions of these diseases certain forms which he considers as belonging to vegetable life, but in so low a stage of development that the microscope cannot distinguish one from the other in all cases, or of what mature plant or individual species or genus they are the representatives. These forms he calls micrococcus, and they may be so small as to be scarcely recognizable when magnified 1000 diameters. In order to determine, therefore, their individuality, he cultivates them in apparatus isolated, as he thinks, from all connection with the air, and upon other substances as milk, fruit, cork, starch, eggs, &c., and then examines the forms developed as he assumes from such primitive germs. These mature forms he regards as the plants which cause the diseases in which the micrococcus is found. The error of this process lies in the impossibility, one may almost say, whatever be the precautions taken, of destroying similar germs which preëxist in the substances used in such experiments, as the history of the modern controversy concerning spontaneous generation has shown.

The experiments of Prof. H. are important and highly interesting, but it will be impossible to give an account of them here. What is of immediate interest to us in this connection is to mark how two observers, working independently of each other and both claiming to have discovered the cause of smallpox, arrive at the same end, as of course they must, if they have discovered its cause. We have seen that Dr. S. describes this cryptogam as a new plant and calls it *Ios*

variola vacciola, but Prof. H. tells us that the micrococcus of vaccine lymph develops into *Torula rufescens*, a common mould, while the corresponding form from variola lymph exhibits, when mature, a modified growth of the same fungus, neither of which, however, are identical with or in any way resemble that figured and described by Dr. S. Here, then, two observers discover two distinct causes of smallpox. They cannot certainly both be right in their inferences; but one of them has given us proper scientific data by which we may judge of the merits of his investigations, the other leaves us wholly in the dark. It is to be feared that we must yet wait for the discovery of the cause of smallpox.

The concluding chapter of Dr. Salisbury's book is on the "Vegetation in Typhoid Fever which appears to be the specific cause of the disease." This, he states, is a peculiar minute algaoid plant, which develops upon all the epidermic and mucous surfaces and penetrates to all the tissues of the body, flourishing with special luxuriance in the glands of Peyer, and increasing "until the organism finally becomes so poisoned and vitiated, that it seems to be no longer able to propagate the vegetation that has been the specific cause of all the trouble." This plant he calls *Biolysis typhoides*. If we turn again to Prof. Hallier's pages, we find that he has also been investigating the cryptogamic nature of this affection, and has concluded, from the cultivation of the spores or micrococcus he finds in the blood and intestinal evacuations, that it is caused by two fungi, *Rhizopus nigricans* and *Penicillium crustaceum*, both well-known moulds. These plants also resemble in no way that described as the specific cause of typhoid by Dr. Salisbury.

The most that can be claimed for these so-called discoveries is the presence in the blood and tissues of persons affected by certain diseases, of forms of cryptogamic vegetation. Even should it be subsequently demonstrated that their presence under such circumstances is constant, and that they never occur at other times, it would not follow necessarily that such plants are the causes of these diseases; for according to the observation of Dr. S., there are two such plants always existing in the blood without affecting its condition. Why may not the new forms be due simply to a chemical change in the nature of this fluid during disease, for instance, for we know how materially the growth of such plants is in-

fluenced by variety of soil or food? The whole subject is one of great importance, and will very likely some day be found to comprehend the laws which govern the maintenance of some of our most fatal diseases; but it is still almost an unknown region, the secrets of which are to be reached not by hasty generalizations, but by patient observation and self-sustaining experiment.

J. C. W.

Twenty-first Annual Report of the Officers of the New Jersey State Lunatic Asylum at Trenton, Dec. 1, 1867.

DURING the past year extensive additions to the buildings of this Asylum have been made, making it now one of the most complete in its arrangements, as well as one of the largest institutions in the country. Five hundred patients can be comfortably accommodated; and this is as large a number as it is deemed expedient to collect under the care of one institution, in view of the practical details necessary in the oversight, proper classification, medical treatment, employment and amusement of that number of insane persons. As a large number still remain unprovided for in New Jersey, a new hospital is to be built and located in the eastern part of the State.

The number of patients in the asylum, Nov. 30, 1866, was 409: 205 males and 204 females. During the year, 212 were admitted, 85 males and 127 females; 171 were discharged—72 as recovered, 54 improved, 8 unimproved, and 37 died; leaving in the asylum, at the close of the year, 450—200 males and 250 females.

From the report of the Superintendent, Dr. H. A. Buttolph, we learn that since the opening of the asylum, May 15, 1848, 2986 patients have been admitted. Of these 1173 have been discharged recovered, 818 improved, 96 unimproved, 9 eloped, 4 not insane, and 436 died.

As the Legislature of the State had not decided to build another hospital when this report was written, the Doctor argues the necessity for additional accommodation, and in doing so quotes his remarks made at the previous meeting of the Association of Medical Superintendents of American Institutions for the Insane, while the subject of making provision for the chronic insane was under consideration. Among the most important of these remarks, are the following:—"I believe it to be the duty of the National and State governments, assisted by such voluntary contributions as wealthy and benevolent individuals may offer, to

provide hospital and asylum accommodation for all insane persons who need and desire them." "The advantages of the district system of providing for all classes of insane are, first, the least possible exposure, fatigue, and expense in removing patients to and from the institution; secondly, the greater readiness with which private individuals and public authorities living near them avail themselves of their benefits; and last, though not least, the greater ease with which the friends of insane patients can visit them when it is deemed suitable for them to do so."

The general operations of the asylum, it is stated, have been conducted with average success and satisfaction; while nearly one hundred more persons have received its benefits than in any other year.

C. K. B.

Medical and Surgical Journal.

BOSTON: THURSDAY, OCTOBER 1, 1868.

THE DISEASES OF CHILDREN.

Few physicians have forgotten what doubt and perplexity in their student days and in their earlier years of practice, obscured their diagnosis of children's sicknesses. To most of us, for aught we were taught, or for aught we could gather from the bewildering compilation called our textbook of such maladies, the illness of little children remained a mystery, a sealed book, to be opened with difficulty, and to be read only by the confused light of our own small experience. To many of us, still, this class of affections remains the most difficult to master; and it has been well said that the physician must have children of his own, in order to comprehend the multiform phases and changes of mind and body among the children of his patients.

Any new work, then, that can throw additional light on such a subject must be doubly welcome; and we have seen none since the treatise of West, which pleased us more than the volume before us.* The French schools have produced the best clinical teachers on this subject, owing to the

* Diseases of Children. A Clinical Treatise based on Lectures delivered at the Hospital for Sick Children, London. By Thomas Hillier, M.D. Lond. Philadelphia: Lindsay & Blakiston. 1868. Svo. Pp. 492.

extent of their hospital facilities for sick children; Great Britain having been, hitherto, rather backward in the matter.

The author, in his Introductory Chapter, gives very concise and thorough directions how to get at little children. It is precisely in these preliminaries that many physicians fail—particularly in auscultating and in getting the pulse and tongue of their little patients. Time is absolutely essential to an accurate diagnosis. We cannot hurry a child without losing everything. A slow and gentle approach, reserving the most disagreeable things until the last moment, is all important.

Dr. Hillier does not aspire to treat of all the diseases of childhood in his single volume; he selects pneumonia, pleurisy, rickets, tuberculosis, diphtheria, hydrocephalus, pyæmia, chorea, paralysis, ascites, scarlatina, typhoid, epilepsy, and certain skin affections.

His simplicity of treatment in pneumonia is well exemplified, as follows:—

“Usually the best treatment is to keep the patient in bed in a room about 60°, well ventilated, without a draught; to give a simple saline mixture containing citrate of potash, or nitre; a milk diet during the height of the fever, and when the temperature falls, some good beef-tea.”

We are particularly pleased with his advocacy of paracentesis thoracis in pleurisy:

“With regard to *paracentesis*, it is not easy to lay down rules to indicate when it should be performed. It is more successful in children than in adults. When there is great distention of the side, causing much dyspnoea, and if, after a fair use of internal remedies, exudation seems inclined to increase, delay is pernicious and reduces the patient's chances of recovery. The exudation of pleurisy more speedily becomes purulent in children than in adults; in secondary pleurisy it is commonly purulent from the first. This is an additional reason for not unnecessarily postponing the operation. The longer the operation is delayed the less probability is there of the lung being capable of expansion. On the other hand, in a case of many months' duration, if the patient is not suffering from dyspnoea or hectic, it will be wiser to leave the side unopened, although it is much distended.”

“Of 33 cases of paracentesis collected by

Ziemssen, 8 died, and 25 recovered more or less completely. The ages ranged up to 14 years. One case, under 12 months, recovered after tapping.”

“Of 12 cases under my care, 5 recovered completely and 2 with fistulous openings, and 5 died. Besides these, 5 pointed and were lanced or opened spontaneously; of which 4 recovered, 2 with permanent fistulae, and the other died.”

The chapter on Diphtheria is an excellent *résumé* of this dreaded, and, to us, rare disease. The author puts membranous croup and diphtheria in the same category.

“I can detect no distinction between membranous croup and laryngeal diphtheria. There are two diseases sometimes called croup which are totally different from diphtheria; one is laryngismus stridulus, a purely spasmodic affection; the other is a simple inflammation of the larynx and trachea, which induces thickening of the mucous membrane and muco-purulent secretion.”

“Besides these, a large number of cases are designated croup which I should prefer to call laryngeal diphtheria. ‘Epidemic croup’ is always ‘diphtheria.’”

“Albumen has been found in the urine of patients with croup, as well as in diphtheria.”

As to diphtheria being a new disease, it is stated:—

“Epidemics of diphtheria have been described from the time of Aretæus downwards.”

Dr. Hillier is an advocate for tracheotomy.

“I would recommend this operation whenever there is decided and persistent distress from want of air, &c.” “The circumstances which render the operation inexpedient are extreme rickets (on account of the great flexibility of the chest walls and the certainty of pulmonary collapse), the existence of consolidation in the lung from pneumonia, and the child being less than twelve months old. M. Trousseau has saved one in four cases (after tracheotomy) in hospital practice, and one half amongst private patients.” “Dr. Buchanan, of Glasgow, has saved seven out of twenty-one cases. In my own hospital, I have had five recoveries out of twenty-two operations. I believe that in well-selected cases at least 25 per cent. may be saved. Even when the patient ultimately dies after tracheotomy, the death is generally a much

easier one than when he is left to die without operation."

We notice particularly a chapter on the Pyæmia of Childhood as something new to us, and perhaps to our readers. Its connection with otorrhœa and cerebral abscess is also dwelt upon. Cases of pyogenic fever following rheumatism, and of chronic pyæmia after typhoid, are given.

In treating of Infantile Paralysis, disease of the spinal cord is particularly referred to; and as to chances of recovery it is said:—

"At the end of six months or more, if the muscles are not recovering their power, or their sensibility to faradization, the muscular fibre undergoes degeneration; the transverse striæ disappear first, then the longitudinal markings; instead of the transverse striæ amorphous granules appear, which are soon replaced by distinct fat globules."

A valuable table of 24 cases of infantile, atrophic paralysis is given.

Space fails us to give farther quotations. We will only mention the very judicious treatment of scarlet fever.

"In mild cases the treatment consists in good nursing; drugs are not needed. The patient must be kept in bed, but not too warm. During convalescence, warm baths and anointing are useful. In severe cases the best medicine is carbonate of ammonia, given in milk. Steaming the throat, or ice may be used." He also alludes to the "cold affusion" and the "cold pack."

We think the table of formulæ for medicines for children is open to the objection of too bulky doses. Most of them prescribe *two spoonsful* for each dose, an amount which would be met with lively objection by the patients, and be likely to make new converts to homœopathy.

We heartily commend the book to our readers.

We feel deeply the great need of clinical instruction in diseases of children in Boston, and we trust that before many years that want may be supplied by a ward for children's diseases in our hospitals. It was from the establishment of a hospital for sick children in London that the present volume originated; and the very excellent work of West on Children had its beginning in the Children's Infirmary at Manchester.

"POSITION" IN THE TREATMENT OF CHLOROFORM POISONING. By E. L. HOLMES, M.D.—Every surgeon has, not unfrequently, observed that chloroform produces considerable pallor, prostration in the action of the heart, arteries, and lungs, apparently without any imminent danger. In all such cases, as well as in those more alarming, the danger seems to depend entirely upon syncope. I have never witnessed a case in which there was turgidity of the vessels and redness of the face, in which there was not also a regular pulse, and a regular, though often stertorous, respiration, causing, perhaps, a peculiar heaving motion of the head. On several occasions, as I observed this tendency to syncope, although I saw no reason for alarm, I directed, experimentally, my assistants to raise the foot of the table sufficiently high to place the patient with the head downward on an inclined plane of at least 40°. I found, invariably, that the pulse at once became fuller and more frequent, and that the color returned to the face.

Subsequently, in administering chloroform to a patient at the Chicago Charitable Eye and Ear Infirmary, the breathing and pulse, almost without warning, suddenly ceased. Although the pulse and respiration had been quite good, there still had begun to be a peculiar "cold perspiration" upon the brow, and a cold, moist condition of the hands, which I attributed to the depressing influence of fear, under which the patient was laboring. I was watching the patient most carefully, thinking in this condition he should receive no more chloroform, when he ceased to breathe. His aspect was most appalling; the face and hands were cold and wet, the features pinched, muscles of the face relaxed, lids half opened, and the cornea turned upward. The foot of the table had not been raised 15 seconds, the tongue having at once been withdrawn, before the pulse reappeared at the wrist and the respiration was reestablished. Upon restoring the patient to the horizontal position, the pulse and respiration again ceased. The elevation of the foot of the table, however, again reestablished the action of the heart and lungs.

Some time after this occurrence, precisely the same symptoms appeared during the inhalation of chloroform. The patient was a young, strong man. In this case the pulse, for a few minutes, was growing less frequent, although the breathing continued quite strong and regular, till, without further warning, the pulse and breathing suddenly ceased. The appearance of this pa-

tient was as frightful as in the case of the other, just described. A similar mode of treatment restored, at once, the action of the heart, some seconds passing before the respiration was fully reëstablished.

I have had an opportunity, at the Infirmary, of demonstrating, experimentally, to students and physicians, more than thirty times, in cases where there was no apparent danger, and yet where there was a tendency to pallor and weakness of the pulse, that, in the position I have described, the cheeks became instantly flushed and the pulse stronger.

In administering chloroform, I always use a napkin, folded several times, upon which the anæsthetic is poured in small quantities at a time, care being taken that a free current of air can pass to the mouth under the napkin. The patients are always in a horizontal position. I watch, with great care, the condition of the pulse and respiration; and yet, it is sometimes somewhat difficult to distinguish the difference between the effects of fear and those of the chloroform.

Whatever may be the obscure causes of fatal results from the use of chloroform, I believe the danger, in by far the larger proportion of cases, depends upon a tendency to death by syncope. To overcome this tendency, it is necessary to stimulate the nervous centres. This may be done by causing a column of blood to press upon the vessels of the brain. It is not sufficient to remove the pillow from the head and place it under the hips. It is necessary that the whole body be placed upon a steep, inclined plane, to force as much blood as possible, by gravitation, into the brain. I believe this is of more importance than any of the methods usually described by writers on the subject. It should take precedence of the withdrawal of the tongue, artificial respiration, galvanism, or stimulants. This remedy can always be applied without delay, and can be followed by any others which may seem desirable.

I have dwelt upon this subject of position, because so little is said upon it, either in the best works upon anæsthetics, or in the reports of the treatment in fatal cases, as found in medical journals. We have reason to believe that very few surgeons or obstetricians have ever placed a patient in the position described, in cases which threaten to terminate fatally.

I have employed large and frequent doses of bromide of potash, as recommended by Dr. Stone, both before and after the administration of ether, as also of chloroform, to

prevent nausea, but have not observed any beneficial result.—*Chicago Med. Examiner.*

IGNORANCE IN THE MEDICAL PROFESSION.—

Two courses of lectures are considered, in our country, sufficient to impress the brains of young men, many of them still in their fourth or adolescent age, with enough medical lore to feed their minds through life.

These courses can be condensed to such a degree, that a person nine months (it takes more time to instruct an apprentice shoemaker) from the time he first thinks of studying medicine, may have a diploma from a State University, proclaiming that in the opinion of the faculty, he is sufficiently learned in the science and art of medicine, to practise upon any person ignorant enough to allow him to do so. The observance of the obligation with which the diploma is conferred and accepted, can be judged of by the fact that the most prominent object in the offices of many homœopaths, is the diploma of the university at which they were graduated, and from the teachings of which they seceded after obtaining titles. The greater the number of students at the present low prices, the larger the income of the professors, and the less the amount of knowledge obtained by the students. The status of the profession is being lowered, each year, by the admission into its ranks of men who are coaxed to come from their shops and ploughs by the underbidding of schools that desire to improve their incomes and names, not by the knowledge imparted to, but by the number of their alumni.—*Med. and Surg. Reporter.*

PHYSIOLOGICAL AND THERAPEUTICAL ACTION OF CAFFEIN.—The number of the *Archives de Physiologie Normale et Pathologique* for Jan.-Feb. 1868, contains an interesting paper on this subject, by Dr. M. Leven. The following are the conclusions he draws from his experiments:—

Caffein appears directly to stimulate the heart. When first absorbed, the circulation and respiration are accelerated, the pulse is more frequent and firmer, and the secretions more active.

The central nervous system, the brain and spinal cord, and the nerves are stimulated.

The muscular system of the life of relation and that of organic life contract violently.

The muscles of the former system are affected with trembling or with general con-

traction. The fibres of the stomach, of the intestines, and of the bladder also contract.

At a later period after absorption of caffeine, the action of the heart is lessened; the frequency and firmness of the pulse diminished; the muscular system becomes exhausted, but is not paralyzed. The nervous system also suffers exhaustion.

Caffein does not entirely extinguish reflex action, nor the functions of nerves and muscles.

It acts as a poison on different animals in different doses; it may be given to man in the dose of many grammes without injury.

It is readily eliminated from the system, and remains in it only a few hours.

He further states that caffeine, like alcohol, diminishes the secretion of urea, but increases the quantity of urine excreted. It diminishes the waste of the organs, and economizes the tissues.

With two litres of coffee daily, the Belgian miners undergo, without substantial food, excessive muscular exertion. The caravans which traverse the desert are supported by coffee during long journeys and lengthened privations of food. It is known that some old persons are almost exclusively nourished by coffee.—*Am. Jour. Med. Sciences.*

A CURE FOR HEADACHE. By GEORGE KENNION, M.D., F.R.C.P., Harrogate.—The remedy, as I have already observed, is simple; it is the bisulphide of carbon in solution. Its mode of application is no less simple. A small quantity of the solution (about two drachms) is poured upon cotton wool, with which a small, wide-mouthed, glass-stoppered bottle is half-filled. This, of course, absorbs the fluid; and, when the remedy has to be used, the mouth of the bottle is to be applied closely (so that none of the volatile vapor may escape) to the temple, or behind the ear, or as near as possible to the seat of pain; and so held for from three to five or six minutes. After it has been applied for a minute or two, a sensation is felt as if several leeches were biting the part; and, after the lapse of two, three, or four minutes more, the smarting and pain become rather severe, but subside almost immediately after the removal of the bottle. It is very seldom that any redness of the skin is produced. The effect of this application, as I have said, is generally immediate. It may be applied, if necessary, three or four times in the day.

The class of headaches in which this remedy is chiefly useful, is that which may

be grouped under the wide term of "nervous." Thus neuralgic headache, periodic headache, hysterical headache, and even many kinds of dyspeptic headache, are almost invariably relieved by it; and although the relief of a symptom is a very different affair, of course, from the removal of its cause, yet no one who has witnessed (and who of us has not seen?) the agony and distress occasioned by severe and repeated headache, but must rejoice in having the power of affording relief in so prompt and simple a manner.—*British Med. Journal.*

INFLUENCE OF DIET UPON THE MOTHER'S MILK.—Dr. Subotin, of Petersburg (*Vierteljahrsschrift f. d. Prakt. Heilk.*, No. xxv., 1868), has instituted a series of experiments in regard to the influence of diet upon the quantity and quality of mother's milk, and his conclusions are as follows: 1st. That the daily yield of milk is increased by animal food, and is diminished by a diet of vegetables. A marked diminution of the milk, and, when persisted in, an entire suppression, is shown when food of a fatty nature has been given only. 2d. The relative proportions of the elements which compose the milk are influenced by the character of the food. The amount of solid matter is increased by an animal diet, and the fatty material is shown by this increase. The increase of these substances in the milk is absolute, not relative; animal food increases the daily amount of the milk secretion. There is scarcely an appreciable change of the proportion of the albuminous and saline ingredients. Bensch supposed that the saccharine matter of the milk was reduced by the use of an animal diet, but it is found not to be so. The experiments of Drs. Bensch, Playfair, and others, that the fatty constituents of the milk are increased by vegetable food, and by an animal diet diminished, are not confirmed by him. The solid properties of the milk, especially the butyaceous, are but relatively increased, and at the same time a decrease in the sugar is shown. 3d. From these observations it would seem that the fatty matter of the milk is created, for the most part, from albumen.—*Medical Record.*

SIR H. THOMPSON advises, as a precaution in examining urine, that a small quantity of the first part of the stream be received in a separate vessel. By this means the water last passed is freed from admixture of matter from prostatitis or urethritis.

Selections and Medical Items.

NON-PENETRATING WOUND OF THE HEART; WOUND OF BOTH LUNGS.—M. Tillaux communicated (*Gazette Hebdomadaire*) the following observation to the *Société Impériale de Chirurgie* at its meeting of 8th of April last. A man aged 55 years, afflicted with general paralysis, attempted suicide by plunging into his breast a long piece of iron. An examination of the thorax showed a wound situated five centimetres below the left nipple. At two centimetres beyond, and a little below this wound, there existed an energetic elevation of the skin, synchronous with the arterial pulsations; the finger applied to this point perceived the stroke of a foreign body. The left half of the thorax was emphysematous, and a large ecchymosis extended around the wound. The uneasiness of the patient precluded the practice of percussion. The sounds of the heart were regular and normal, the elevation of the skin by the piece of iron coincided with the systole of the ventricles. There was no evidence of liquid in the pericardium; nothing amiss with the abdominal organs; no sign of internal hæmorrhage. The pulse, slightly increased, was regular; and the temperature of the skin was not elevated. It seemed necessary, therefore, to conclude either the contact of the distant extremity of the foreign body with a large artery, or its penetration through the walls of the heart.

Under the impression that immediate extraction would be attended with more hazard than would result from delay, M. Tillaux awaited the morrow. But the instrument had worked through the tissues; an incision was made at its centre, the patient fainted, and it was deemed prudent to suspend the operation. Some days afterwards the patient announced an acute pain in the region of the eighth dorsal vertebra; the oppression was very great; there was expectoration of bloody sputum of a very red color; no signs of pneumonia. Ten days later, the painful point had settled itself at the posterior and inferior portion of the right side; no available sign could be determined by auscultation. The discomfort diminished little by little, the appetite returned, and the general condition improved.

In March, 1868 (3 months after the attempt at suicide), the patient had frequent expectoration of bloody and purulent sputa. A blowing murmur could be distinguished at the base of the heart, with the first sound. Syncope soon supervened, and the patient died on the 24th of March.

The result of the autopsy was as follows: The anterior border of the left lung was adherent to the thoracic wall and to the pericardium; the pericardium was adherent to the surface of the heart in its entire extent. The posterior wall of the left ventricle, and the inferior lobe of the right lung, were traversed from before backward, and from left to right, by an iron spike, which had not penetrated into the cavity of the ventricle, nor involved the auricles. The instrument, leaving the aorta to the left, had passed between the vertebral column and the œsophagus.—*New York Medical Record*.

M. SAPPET's microscopical examinations have shown that in one healthy ovary, the number of ovisacs and ovules is more than 300,000, making about 700,000 for the individual. He therefore calculates, that if all the ova existing in the surface of the ovaries of a young woman eighteen or twenty years of age were to be fecundated and undergo all their phases of development, it would require but one woman to populate four such cities as Lyons, Marseilles, Bordeaux, and Rouen; and but two to furnish inhabitants for a capital like Paris containing 1,600,000 souls.—*CAZEAUX*.—*N. Y. Medical Gazette*.

The *Lancet* refers to the hair "washes" or "restorers" now so much in vogue, as a possible source of serious disease. The color-restoring agent in these nostrums is lead, and, in view of the very minute quantity of this substance which suffices to poison some individuals, the editor remarks that they run "no inconsiderable risk of finding the 'restoration' of their hair attended by loss of power in their wrists."—*Ibid*.

MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.
TUESDAY, 9, A.M., City Hospital, Medical Clinic; 10, A.M., Medical Lecture. 9 to 11, A.M., Boston Dispensary. 10-11, A.M., Massachusetts Eye and Ear Infirmary.
WEDNESDAY, 10, A.M., Massachusetts General Hospital Surgical Visit. 11 A.M., OPERATIONS.
FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.
SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

TO CORRESPONDENTS.—Communications accepted.—Malignant Pusillæ—Parasitic Growth in the Ear.

PAMPHLETS RECEIVED.—Ovariectomy; a Paper read before the Ohio State Medical Society, at its Annual Meeting in June, 1868. By Alexander Dunlap, A.M., M.D., of Springfield, Ohio.—Recherches Expérimentales sur une Nouvelle Fonction du Foie, consistant dans la Séparation de la Cholestérine du Sang et son Élimination sous forme de Stercorine (Sérolène de Boudet). Par Austin Flint fils, Docteur en Médecine, Professeur de Physiologie et de Microscopie au Collège de Médecine de Bellevue-Hospital à New York, &c. &c. Paris: Germer Baillière. New York: D. Appleton & Co.

DIED.—At Portsmouth, N. H., 22d ult., Nathan Warren Oliver, M.D., 49.—At Littleton, N. H., 23d ult., Dr. William Burns, 85.

DEATHS IN BOSTON for the week ending Saturday noon, September 28th, 135. Males, 61.—Females, 64.—Abscess, 1—accident, 2—apoplexy, 3—infarction of the bowels, 2—congestion of the brain, 1—disease of the brain, 5—bronchitis, 4—burns, 1—canker, 1—cholera infantum, 22—cholera morbus, 2—consumption, 19—croup, 4—debility, 2—diarrhoea, 6—diphtheria, 1—dropsy, 1—dropsy of the brain, 2—dysentery, 5—scarlet fever, 4—typhoid fever, 4—disease of the heart, 1—infantile, 3—intemperance, 1—intussusception, 1—disease of the kidneys, 1—congestion of the lungs, 2—old age, 1—paralysis, 1—peritonitis, 1—premature birth, 2—puerperal disease, 1—rheumatism, 1—disease of the spine, 1—teething, 1—tumor, 1—unknown, 12—whooping cough, 2. Under 5 years of age, 62—between 5 and 20 years, 12—between 20 and 40 years, 25—between 40 and 60 years, 19—above 60 years, 9. Born in the United States, 92—Ireland, 25—other places, 8.